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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Oded Nahleili

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EXAMINER

FARAH, AHMED M

ART UNIT

PAPER NUMBER

3769

MAIL DATE

DELIVERY MODE

11/26/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/762,583	NAHLEILI, ODED	
	Examiner	Art Unit	
	Ahmed M. Farah	3769	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/05/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3, 4, 15, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kataoka et al. US Patent No. 5,374,266.

Kataoka et al. disclose a medical laser apparatus for treatment of hard tissue present in fluid filled cavity, such as the dental tissue, the apparatus comprising:

an Er:YAG laser for generating treatment pulses having a wavelength of about 2.94 μm ; and

an optical fiber system for delivering the treatment laser pulses to the desired dental tissue (see Fig. 7; col. 2, lines 10-33; col. 4, lines 1-13; col. 5, lines 11-18; and Example 3).

Kataoka et al. further teach that the laser system is used for removing dental caries, forming cavities in teeth, treating pulp canals and removing tartar (see col. 2, lines 25-33 and col. 4, lines 1-5). Hence, Kataoka et al. teach the step of applying treatment laser pulses to the hard dental tissue as claimed.

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2. Claims 1, 10-15 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Sinofsky US Patent No. 5,363,387.

Sinofsky discloses a variable pulse-width laser apparatus and method of use for delivering treatment energy to biological tissue, such as the hard dental tissue, for surgical or therapeutic purposes (see Fig. 3 and col. 4, lines 21-27), the apparatus comprising:

an endoscope catheter **90** having an endoscopic port **92** for viewing the treatment site (see Fig. 4);

an Er:YAG laser system adapted to generate the treatment laser pulses (see col. 2, lines 29-34); and

an optical fiber bundle **40** for delivering the treatment laser pulses to the desired tissue, through the irradiation port **17**.

The optical fiber bundle **40** is configured to transmit laser pulses from the laser source, through the handpiece, to treatment site. In the medical art, a handpiece is known as a unit configured to fit the hand of a surgeon/operator. Hence, the optical fiber bundle, which passes through the length of the handpiece is at least longer than 10 cm.

3. Claims 1, 3, 4, 15 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Mueller et al. US Patent No. 5,458,594.

Mueller et al. disclose a laser apparatus and methods of use for the treatment of hard biological material, such as hard dental tissue, the method comprising:

generating laser radiation from an Er:YAG laser source; and

applying the laser radiation to the hard dental tissue as claimed (see the abstract, and claims 1 and 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 3-22 are rejected under 35 U.S.C. 103(a) as obvious over Temelkuran et al. US Patent No. 7,331,954 in view of Liebernamm et al. US Patent No. 5,971,755.

Temelkuran et al. disclose a treatment laser system and methods of use for performing a variety of surgical procedures, including dental and oral surgery (see col. 37, line 17 and col. 39, lines 24-36), the apparatus comprising:

- a handpiece adapted to deliver treatment energy to a desired tissue site;
- a laser source selected from the group consisting of a Co₂, Er:YAG, Nd:YAG, and Ho:YAG lasers for generating the treatment energy (see col. 10, lines 44-52);
- a fiber optic system for delivering treatment energy from the laser source to the desired dental tissue (see col. 6, lines 3-17); and
- an endoscopic system **610** for viewing the treatment site (see Fig. 7B).

With respect to claim 6, the endoscope of Temelkuran et al. is not a Nahlieli type sialo-endoscope as claimed. And, with respect to claims 7-9, 19, 21 and 22, they do not

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particularly specify the intensity of the treatment energy. Liebermann et al. teach a dental treatment laser system and method of use in which an Er:YAG laser provides treatment laser pulses having energy of between 100 to 500 mJ.

Hence, at the time of the applicant's invention, it would have been obvious to one of ordinary skill in the art to modify Temelkuran et al. in view of Liebermann et al. and use energy density within the claimed range for the treatment of the dental tissue. It would have been further obvious to one of ordinary skill in the art to use any commercially available endoscope that is suitable for insertion of small body cavities, such as oral cavities because no advantage of the recited particular type is claimed.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ahmed M. Farah whose telephone number is (571) 272-4765. The examiner can normally be reached on Mon, Tue, Thur and Fri between 9:30 AM 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johnson Henry can be reached on (571) 272-4768. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ahmed M Farah/
Primary Examiner, Art Unit 3769

November 21, 2008.